

Card 1/3

L 62061-65

ACCESSION NR: AP5016840

graphically. The effective activation energies of the thermal and radiation-thermal processes were found to be 60 and 24 kcal/mol. Orig. art. has 2 tables and 5 figures.

ASSOCIATION: Institut neftekhimicheskogo sinteza im. A. V. Topchiyeva AN SSSR
(Institute of Petrochemical Synthesis, AN SSSR); Institut fizicheskoy khimii AN SSSR
(Institute of Physical Chemistry, AN SSSR)

(Institute of Physical Chemistry, AN SSSR)

SUBMITTED: 04Jul64

ENCL: 01

SEC CODE: 52, GC

NO REF SOV: 003

OTHER: 001

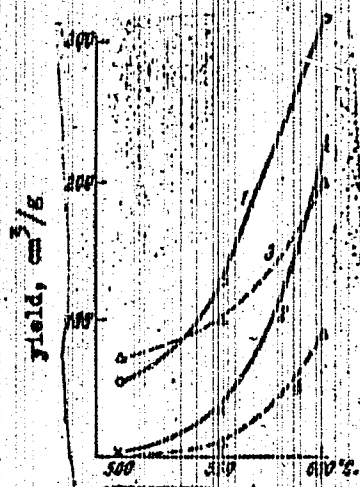
Card 2/3

L 62081-65

ACCESSION NR: AP5016840

ENCLOSURE: 0

Fig. 1. The relation between the yield of gaseous products in thermal and radiation-thermal cracking of the straight-run distillation benzene with the boiling end at 140C to temperature. 1- radiation-thermal cracking in the reactor with a uniform temperature field; 2- thermal cracking in the same reactor; 3- radiation-thermal cracking in the reactor with nonuniform temperature field; 4- thermal cracking in the same reactor



Card ^{KE} 3/3

TSVETAYEVA, Ye.M.; GLUSHNEV, V.Ye.

Methods of synthesis and modification of softeners for rubber reclaiming. Kauch. i rez. 24 no.11:19-22 '65. (MIRA 1966)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i Institut neftekhimicheskogo sinteza AN SSSR.

S/035/62/000/001/004/033
A001/A101

AUTHOR: Glushneva, I. N.

TITLE: On determining the sizes of particles participating in the production of scattered light

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 1, 1962, 29.
abstract 1A272 ("Sobshch. Gos. astron. inst. im. P. K. Shternberga",
1960, no. 107, 16-22)

TEXT: The author analyzes scattering of light in a cloud of small particles, the size distribution of them being expressed by a prescribed function. An approximate method has been proposed for determining dimensions of particles with the greatest contribution to scattering.

[Abstracter's note. Complete translation]

Card 1/i

ACCESSION NR: AP3004323

S/0033/63/040/004/0678/0681

AUTHOR: Alduseva, V. Ya., Glushneva, I. N.

TITLE: Emission lines of the Beta Lyr envelope in the ultraviolet spectral region

SOURCE: Astronomicheskii zhurnal, v. 40, no. 4, 1963, 678-681

TOPIC TAGS: Beta Lyr, Beta Lyr envelope, envelope, emission line, ultraviolet spectral region, He I, Lagrange point, second Lagrange point, optical thickness, ionized titanium, gas flow

ABSTRACT: Altogether 45 spectrograms have been obtained of β Lyr with the slitless ASI-5 spectrograph mounted at the High Altitude Station of the Gosudarstvennyy astronomicheskii institut im. Shternberga (State Astronomical Institute). The station is located near Alma-Ata at a height of 3000 meters. The emission lines of neutral helium and ionized titanium of the β Lyr envelope in the investigated spectral region $\lambda\lambda 3600-3000$ are identified. The equivalent widths of emission line He I 3188 A, reduced to the continuum at maximum brightness, are determined at different phases of the eclipse. An intensity increase

Card 1/2

ACCESSION NR: AP3004323

of the line at principal and secondary minimum is noted. The increase at secondary minimum is connected with the flow of gas from the envelope of the envelope of the system near the second Lagrange point L_2 . The results are compared to observations of other authors of He I 3889 Å, belonging to the same triplet. The intensity increase of λ 3188 Å at secondary minimum and the absence of an increase of 3889 Å at this same phase is explained by different optical thicknesses in the center of the line ($\tau \sim 10$ for λ 3889 Å and $\tau \sim 5$ for λ 3188), which leads to the effective formation of these lines in different layers of the envelope. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Gos. astronomicheskiy in-t im. P. K. Shternberga (State Astronomical Institute)

SUBMITTED: 07Jul62

DATE ACQ: 20Aug63

ENCL: 00

SUB CODE: 00

NO REF. SOV: 002

OTHER 007

Card 2/2

GLUSHNEVA, I.N.

Dependence of Venus albedo on the wave length in the ultraviolet
spectrum region. Soob. GAISH no.133:37-43 '64. (MIRA 17:8)

SECRET

1. The following information was obtained from a review of the records of the
Central Intelligence Agency, Office of the Director, Office of the Chief of Staff,
and the Office of the Assistant Secretary for Intelligence and Security.

2. The information was obtained from a review of the records of the
Central Intelligence Agency, Office of the Director, Office of the Chief of Staff,
and the Office of the Assistant Secretary for Intelligence and Security.

GLUSHNEVA, I.N.

Spectrophotometry of some hot stars in ultraviolet, Astron.zhur.
41 no.2:212-222 Mr-Apr '64. (MIRA 17:4)

1. Gosudarstvennyy astronomicheskii institut im. P.K.Shternberga.

ACCESSION NR: AP4043958

S/0033/G4/041/004/0720/0723

AUTHOR: Glushneva, I. N.

TITLE: Dependence of the albedo of Venus and Jupiter on wavelength in the ultraviolet region of the spectrum

SOURCE: Astronomicheskoy zhurnal, v. 41, no. 4, 1964, 720-723

TOPIC TAGS: Venus, Jupiter, spectrograph, planetary albedo, ultraviolet spectral region

ABSTRACT: The dependence of the albedo of Venus and Jupiter on wavelength in the ultraviolet region of the spectrum (4500-3200 Å) was investigated in Jan. - Feb. 1963 using the ASI-5 slitless spectrograph of the Vyssokogornaya stantsiya GAISH (High-Mountain Station of the State Astronomical Institute) near Alma-Ata at an elevation of 3,000 m. The dispersion at H γ was 150 Å/mm and at 3000 Å was 50 Å/mm. On seven nights 30 spectrograms of Venus were obtained and on four nights 10 spectrograms of Jupiter were obtained. The comparison stars were α Lyr and α UMa. The spectra of the planets and comparison stars were photographed with an exposure of 1 minute on Astro-Platten plates. Fig. 1 of the Enclosure shows the dependence of the albedo of Venus and Jupiter on wavelength. The albedo of Venus decreases slightly with a decrease of wave-

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ACCESSION NR: AP4043958

length; near 3500 Å and 4100 Å there are two minima. In the interval 4500-3700 Å the albedo of Venus decreases by a factor of 1.3. The dependence of the Venusian albedo on wavelength is in good agreement with the results of photometric measurements of the brightness of Venus in the U, B, V system. The variation of the Venusian albedo contradicts Kozyrev's data (N. A. Kozyrev, Izv. Krymsk. astrofiz. obs., 12, 177, 1954). Kozyrev found that in the range of wavelengths from 4500 to 3800 Å the Venusian albedo decreases by a factor of 4, whereas in the region 6500-4500 Å it decreases only by a factor of 1.5. The curve of the albedo of Jupiter in the considered range of wavelengths differs from that of Venus. The albedo minimum at 4100 Å is lacking for Jupiter. At 3900 Å the albedo begins to decrease and in the interval 3900-3500 Å it decreases by a factor of 1.5. At 3500 Å the Jovian albedo has a minimum; with a further decrease in wavelength the albedo begins to increase. Orig. art. has: 2 formulas, 1 figure and 1 table.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut imeni P. K. Shternberga (State Astronomical Institute)

SUBMITTED: 11Oct63

SUB CODE: AA

NO REF SOV: 004

ENCL: 01

OTHER: 004

Card 2/3

ACCESSION NR: AP4043958

ENCLOSURE: 01

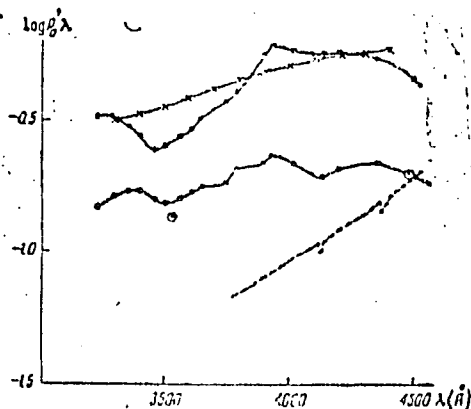


Fig. 1. Curves of the albedo of Venus and Jupiter in the UV region of the spectrum. The upper solid curve is the albedo of Jupiter. The crosses are the results obtained by Younkin (R. L. Younkin, Spectral energy distributions of the major planets. Liege, Symposium 1962, p. 125). The lower solid curve is for the albedo of Venus. The dashed lines give the results obtained by Kozyrev (reference in text of abstract). The circles denote the results of a photometric study of Venus in the U, B, V system (C. F. Knuckles, M. K. Sinton and W. M. Sinton, Low. Obs. Bull., V, 115(10), 153, 1961).

Card 3/3

GLUSKIN, I. V.

Heavy Metallurgy Institute of the Academy of Sciences of the USSR -
Moscow, USSR. Paper No. 1:88-40. 30-3. 1965
(1971-1972)

1. Heavy Metallurgy Institute of the Academy of Sciences of the USSR -
Moscow. Submitted September 1, 1965.

L 22669-66 EMT(1) GW
ACC NR: AP6006775

SOURCE CODE: UR/0033/66/043/001/0080/0082

AUTHOR: Glushneva, I. N.

ORG: State Astronomical Institute im. P. K. Shternberg (Doo, astronomicheskii in-t)

TITLE: The ultraviolet spectral energy distribution of four stars

SOURCE: Astronomicheskii zhurnal, v. 43, no. 1, 1966, 80-82

TOPIC TAGS: spectral energy distribution, star, UV spectroscopy, spectrophotometry/
ASI-5 spectrograph

ABSTRACT: This work is a continuation of previous spectrophotometric investigations of stars of early spectral classes in order to determine the energy distribution in their spectra in absolute energy units. Spectrograms of four stars (β Ari, β Tau, γ UMa, and η UMa) were obtained with a non-slit ASI-5 spectrograph at the high-altitude expedition station of the Sternberg Astronomical Institute in the vicinity of Alma Ata (3000 m). Observations were made in June-August 1964. The telescope had a 250-mm mirror. Dispersion at the H γ line was 150 Å/mm; at

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UDC: 523.87

L 22669-66

ACC NR: AP6006775

300 Å it was 50 Å/mm. The energy values for the four stars at 18 different wavelengths from 3020 to 4650 Å are tabulated. The data obtained are in good agreement with the absolute measurements of Kharitonov and other authors. They also agree with rocket data obtained at the Goddard Center of NASA and other rocket data. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 03/ SUBM DATE: 21Sep65/ ORIG REF: 002/ OTH REF: 005

Card 2/2 *su*

KOROBKINA, G., kand.tekhn.nauk, nauchnyy sotrudnik; GLUSHNEVA, Z., inzh.-
tekhnolgo

Diet in arteriosclerosis. Obshchestv.pit. no.1:49 Ja '60.
(MIRA 13:5)

1. Institut pitaniya AMN SSSR (for Korobkin).
(Diet in disease) (Arteriosclerosis)

KOROBKINA, G., nauchnyy sotrudnik; GLUSHNEVA, Z., inzh.-tekhnolog

Diet in arteriosclerosis. Obshchestv.pit. no.2:48-50 F '60.
(MIRA 13:6)

1. Institut pitaniya AMI SSSR (for Korobkina).
(DIET IN DISEASE)

KOROBKINA, G.S.; NEMENOVA, Ya.M.; PARAMONOVA, E.G.; GVOZDOVA, L.G.
GLUSHINEVA, Z. Ya.

Effect of diets of different qualitative composition on the
clinical course of disease and lipid metabolism in patients
with coronary atherosclerosis. Vop.pit. 22 no.1:17-22 Ju-F'63
(MIRA 16:11)

1. Iz Instituta pitaniya AMN SSSR, Moskva.

*-

KOROBKINA, G.S.; NIKONOVA, Yu.M.; PALAMONOVA, E.G.; GVOZDEVA, L.G.;
KALININA, N.N.; GRESHEVA, T.Ya.; TIMARKINA, T.I.; MIREK, M.L.

Effect of a phosphatide-enriched diet on cholesterol metabolism in
patients with a history of myocardial infarct. Vop. pit. 23 no.2:
49-53 Mr-Apr '64. (MIRA 17:10)

1. Iz serdechno-sosudistogo otdeleniya kliniki lechebnogo pitaniya
(zav. - doktor med. nauk V.P. Sokolevskiy), otdela tekhnologii
(zav. - prof. D.I. Lobanov) i otdela fiziologii (zav. - chlen-korres-
pondent ANU SSSR prof. O.P. Molchanova) Instituta pitaniya ANU SSSR,
Moskva.

LUDRII, V.A.; OYES, G.N.; BORCAIN, S.F.; HUGHELI, Yu.M.; GLISECHY, M.V.;
NAK, B.P.; LAPSHOVA, M.P.; YUSOF, A.M.; PATENKO, G.S.;
ADRIANOVA, V.P.

Smelting high-grade steel in open-hearth furnaces fired with
natural gas. Stal' 20 no. 7:599-602 J1 '60. (MIRA 14:5)
(Open-hearth furnaces--Equipment and supplies)

PLESHCHIN, N.S.; ANDRIYKO, A.D.; ANDRIYKO, A.D.; ANDRIYKO, N.P.;
GILBERTSON, R.V.; LEPICHOV, A.D.; LEPICHOV, G.I.

Block lining of the upper structure of open-hearth furnaces.
Ogneupory 30 no.11:8-10 1965. (MIRA 18:11)

1. Vsesoyuznyy institut ognepokry (for Tladetov, Anekhin).
2. Volgogradskiy metallurgicheskiy zavod "Krasnyy Oktjabr"
(for Gorokin, Irozhovskiy, Gindakov, Iaroslav, Kozlov).

GLUSHCHEV, M.V.

1971, No. 1, p. 100-101
A. 100

AUTHORS: Yashin, A. M., Krasovskiy, S. V., Kozlov, V. I., Glushchev, M. V.,
Yashin, V. I., Glushchev, M. V.

TITLE: The effect of rare-earth elements on the corrosion resistance of structural
alloys

SYNOPSIS: Metallurg, Vol. 10, 1971, No. 1.

NOTE: In the article it is established that the addition of rare-earth elements to structural alloys leads to a significant increase in their corrosion resistance. The authors carried out a series of experiments on the corrosion of alloys in an aggressive medium. The results of the experiments were analyzed by L. N. Ponomarev, L. I. Kozlov, S. V. Krasovskiy, S. R. Spitsyn, V. A. Grigorenko, and M. V. Glushchev. They studied the effect of the amount of rare-earth elements on the corrosion resistance of alloys in iron and the effect of the temperature of the solution in alloys with 20% and more of these elements. The results of the experiments show that rare-earth elements in the given alloys will increase the resistance of the steel; on the other hand, the increasing degree of corrosion resistance of alloys

Card 1/2

GLUSKER, B. and KRYLOV, P.

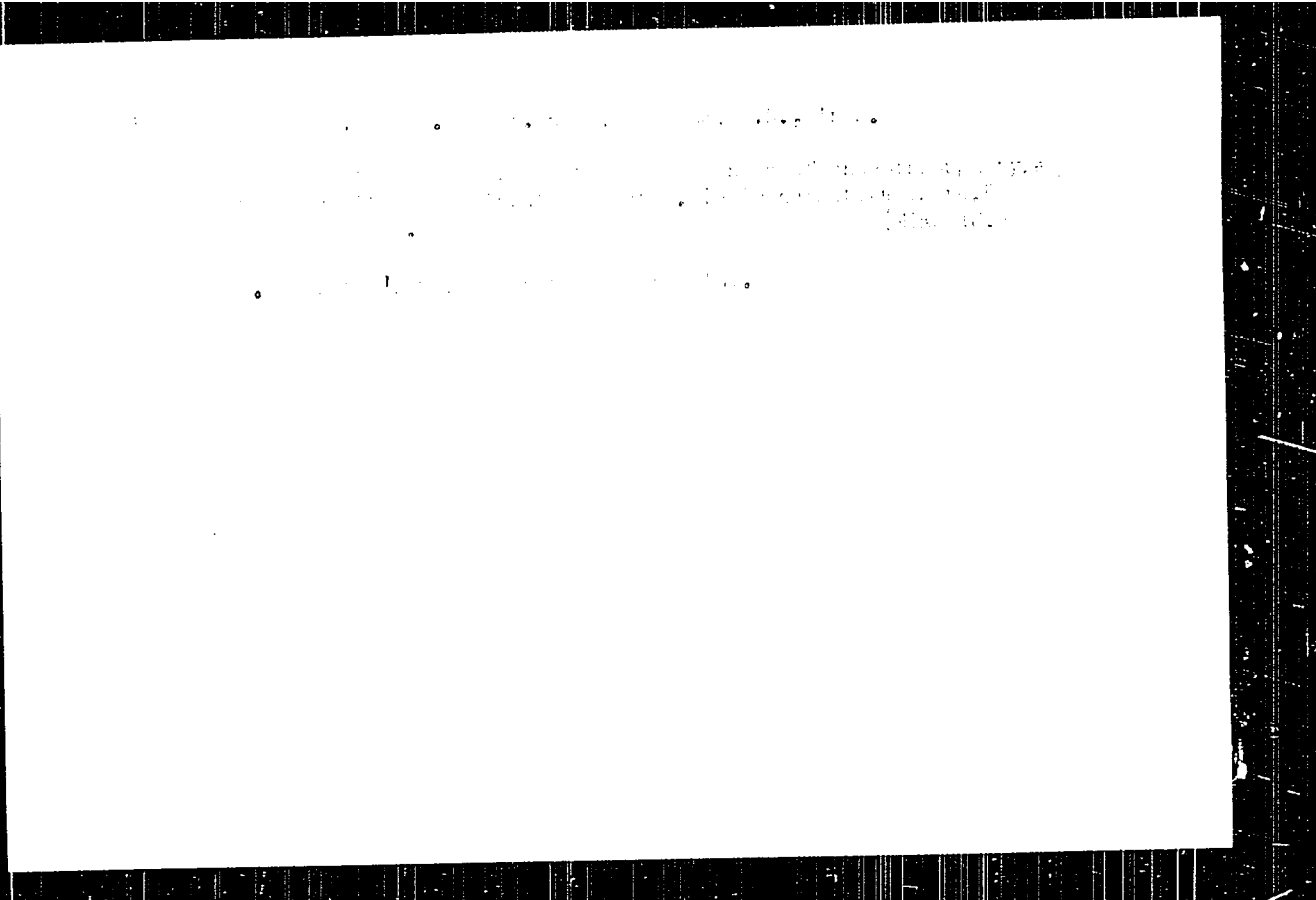
"The System of National Economic Plan Indexes," Planovoye Khozyaystvo, No 5, pp.
76-86, Moscow, 1954

Translation No 395, 4 May 55

KRASYAKOVA, L.Yu., kand. tekhn. nauk; GLUSKER, B.M., inzh.

Stability of a flow in U-shaped panels of once-through-type
boilers. Teploenergetika 10 no.11:41-46 N '63,
(MIRA 17:1)

1. Tsentral'nyy kotloturbinnyy institut.



KRASYAKOVA, I.Yu., kand. tekhn. nauk; GLUSKER, B.N., inzh.

Study of the hydraulics of a flow in π -shaped pipes at near critical
and supercritical pressures. Energomashinostroenie 11 no.9:18-21 S
'65. (MIRA 18:10)

CHADAYEV, Yakov Yermolayevich; GLUSKER, B.Ya., red.; KONIKOV, L.A., red.;
PONOMAREVA, A.A., tekhn., red.

[Problems in planning the national economy] Voprosy planirovaniia
narodnogo khoziaistva. Moskva, Gosplanizdat, 1961. 176 p.
(MIRA 14:6)

1. Zamestitel' predsedatelya Gosplana RSFSR (for Chadayev).
(Russia--Economic policy)

GLUSKIN, Boris Yakovlevich; ROZOVSKIY, L.Ya., red.; MISHKAYEVSKAYA,
G.V., mladeniy red.; GELASIKOVA, Ye.S., tekhn. red.

[Methodology for computing plan indices; problems of improv-
ing the index system] Metodologiya postroeniya pokazatelei
plana; voprosy sovershenstvovaniia sistemy pokazatelei. Mo-
skva, Ekonomizdat, 1963. 149 p. (KIRA 17:1)

GLUSKER, Il'ya Yakovlevich; MANUILOV, Lev Aleksandrovich; YAKOVLEV, K.F.,
red.; KOZHEMYAKINA, V.P., tekhn.red.

[The Yaroslavl Economic Region] IAroslavskii ekonomicheskii raion.
IArosavl', IAroslavskoe knizhnoe izd-vo, 1958. 52 p.

(MIRA 13:3)

(Yaroslavl Province--Industries)

KOTLYARENKO, B.M.; GEL'SKER, H.S.

Status of dispensary treatment of diabetes patients in Gogel
Province. Zdrav.Belor. 5-11-12 01 '59. (MIRA 12:6)

1. Iz Gogel'skogo oblastnogo endokrinologicheskogo dispensera
(glavnyy vrach B.M.Kotlyarenko).
(GOGEL PROVINCE--DIABETES)

GLUSKER, M.S.

Dispensary treatment of diabetes patients with sulfanilamide preparations. Zdrav. Belor. 5 no.10:20-22 0 '59. (MIRA 13:2)

1. Iz Gomel'skogo oblastnogo endokrinologicheskogo dispansera (glavnyy vrach B.M. Kotlyarenko).
(SULFONAMIDES) (DIABETES)

KOTLYARENKO, B.M.; GLUSKER, M.S. (Gomel')

Case of acromegaly with manifestations of virilism and diabetes insipidus for 32 years with preservation of the menstrual cycle for 38 years. Probl.endok.i gorm. 5 no.6:110-111 N-D '59.

(MIRA 13:5)

1. Iz Gomel'skogo oblastnogo protivozobnogo dispensera (glavnyy vrach B.M. Kotlyarenko).

(ACROMEGALY case reports)

(VIRILISM case reports)

(DIABETES INSIPIDUS case reports)

(MENSTRUATION)

KOTLYARENKO, B.M.; GLUSKER, M.S.

Work of the polyclinical department of the Gomel' Province Goiter
Prevention Dispensary in 1957-1958. Zdrav. Belor. 6 no. 10:30-32
0 '60. (MIRA 13:10)

1. Iz Gomel'skogo oblastnogo protivozobnogo dispansera (glavnyy
vrach B.M. Kotlyarenko).
(GOMEL' PROVINCE---GOITER)

MAL'TSEVA, A.A.; GLUSKER, M.S., vrach-endokrinolog

Diabetic coma. Zdrav. Bel. 7 no. 2:53-54 F '61. (MIRA 14:2)

1. Zaveduyushchaya terapevticheskim otdeleniyem Khoyniskoy
rayonnoy bol'nitsy (for Mal'tseva). 2. Gomel'skiy oblastnoy
protivczobnyy dispanser (for Glusker).
(DIABETES)

KOTLYARENKO, B.M.; GLUSKER, M.S.

Hormone-producing tumor of the ovary in a 7-year-old girl.
Probl.endok.i gorm. 7 no.2:98-99 '61. (MIRA 14:5)
(OVARIES—TUMORS)

KOTLYARENKO, B.M., vrach; GLUSKER, M.S., vrach; TAMARKIN, I.D., vrach;
KRASOVSKIY, V.A., vrach

Results of a house-to-house study of the population for goiter incidence.
Zdrav. Bel. 7 no.9:63-64 S '61. (MLA 14:10)

1. Iz Gomel'skogo oblastnogo protivozobnogo dispansera (for Kotlyarenko,
Glusker, Tamarkin). 2. Respublikanskiy protivozobnyy dispanser,
Belorussiya (for Krasovskiy).
(GOMEL' PROVINCE--GOITER)

KOZLOV, N.P.; GLUSKER, M.S. ; LIBERTMAN, B.L.

Goiter of large dimensions in a stillborn child. Idrav. bel.
8 no.1:64 Ja 1962. (MIRA 15:3)

1. Iz Lel'chitskoy rayonnoy bel'nitsy (glavnyy vrach N.P.
Kozlov).

(GOITER)

KOTLYARENKO, B.M., vrach; GLUSKER, M.S., vrach; TAMARKIN, I.D., vrach;
GRUDTSYN, A.V. vrach (Gomel')

Endemic goiter in Gomel' Province. Sov. zdraz. 21 no.9:45-47'62
(MIRA 17:4)

1. Iz Gomel'skogo oblastnogo profilakticheskogo dispansara (glavnyy
vrach - B.M.Kotlyarenko).

GLUSKER, R.V.; GROMOVA, I.I.

Clinicopathoanatomical characteristics of a case of strongyloidosis.
Med.paraz. i paraz.bol. 25 no.4:305-308 O-D '56. (MLRA 10:1)

1. Iz terapevticheskogo otdeleniya (zav. Ye.S.Brusilovskiy) i patologo-
anatomicheskogo otdeleniya (zav. M.V.Araf'yeva, konsul'tant - prof.
M.K.Dal') Dorozhnoy bol'nitsy No. 2 Yugo-zapadnoy zheleznoi dorogi
(nachal'nik bol'nitsy G.I.Zubkov)
(STRONGYLOIDIASIS, case reports,
clin. aspects & histopathol. (Rus))

GLUSKER, Ya., inzh.; SEMENOV, L., inzh.

Some regularities in the wear of medium trawler hulls. Mor. flot
23 no.6:27-29 Ja '63. (MIRA 16:9)
(Hulls (Naval architecture)--Corrosion)
(Trawls and trawling)

GLUSKIN, A.Ya., kand. tekhn. nauk; STEPANOV, V.I., inzh.;
BORDACHENKOV, A.M., inzh.

Static voltampere characteristics of a slide contact. Vest.
elektrom. 34 no.7:44-47 J1 '63. (MIRA 16:8)

GLUSKIN, A.Ya., kand.tekhn.nauk; BORDACHENKOV, A.M. , inzh.; STEPANOV,
V.P., inzh.

Performance of the brush contact of electrical machines at in-
creased current densities. Elektrotehnika 34 no.9:20-25 S '63.
(MIRA 16:11)

Nature of the phases formed by the mutual diffusion of copper-zinc and iron-zinc and the kinetics of their growth. V. Bogukov and D. Glushkin. *J. Tech. Phys.* (U.S.S.R.) 6, 281 (1936). The nature of the various phases present was determined by microstructural x-ray and chem. analysis both of the solid and the liquid phases. From the kinetics of the growth of the γ phase at 600°C., the coeff. of diffusion is found to obey the law $D = A e^{-Q/RT}$ both for solid solns. and for the transformation from the liquid to the solid state of low-melting alloys. With Fe-Zn, the δ phase FeZn and the γ phase FeZn₂ were formed at 600°C., with the resp. crystal lattice dimensions $a = 2.70$ and 8.90 Å., resp. The Q values are at approx. 15,200 for Cu-Zn and 17,700 for Fe-Zn. A large no. of x-ray data are given for the various phases of each alloy mixt. J. H. Rathmann.

ASH 51.1 METALLURGICAL LITERATURE CLASSIFICATION

19

5

PROCESSES AND PROPERTIES INDEX

The Dissolution of High-Melting-Point Metals and Alloys in Low-Melting-Point Metals and Alloys. M. G. Oknov and D. Ya. Gluskin. (Metallurg, 1938, No. 12, pp. 7-20). (In Russian). The authors carried out an extensive series of experiments by immersing a sample (about 5 g.) of the high-melting-point alloy or metal supported on an iron wire in about 40 g. of the molten low-melting-point alloy or metal contained in a 25 c.c. graphite crucible, keeping the whole at a definite temperature for a definite time and then allowing to cool. The solidified contents of the crucible were then sawn through and examined microscopically, the nature and position of the products of reaction being noted. The combinations investigated included: iron in aluminum-magnesium, iron in zinc-aluminum, iron and nickel in zinc and iron and nickel in aluminum as well as several combinations of non-ferrous metals. They discuss their observations at considerable length from the phase-diagram point of view and also from the point of view of the heat of formation of intermetallic phases. When high-melting-point pure metals are acted upon by low-melting-point alloys, the phases formed are determined primarily by their heat of formation, these with the maximum thermal effect being the most readily formed. This is not the case when high-melting-point alloys are acted upon by molten pure metals. In such cases an excess of one of the metals in the alloy and the rate of solution of the phases formed are the controlling factors.

AS 6-55-1 METALLURGICAL LITERATURE CLASSIFICATION

Nature and kinetics of growth of the intermetallic phases produced in the course of interdiffusion of metals. V. S. Bugakov and D. Ya. Gluskin. *J. Tech. Phys.* (U.S.S.R.), 9, 1293-1301 (1939); cf. *C. A.* 30, 7952. At the boundary between Cu and Cd above 400° the compd. CuCd₂ and below 400° also a narrow layer of Cu₃Cd₂ is formed. Ag and Zn at 400-450° give AgZn, Ag₂Zn and Ag₃Zn. Ag and Cd produce AgCd and Ag₂Cd. Apparently the formation of phases having high heats of formation is favored. The thickness of the diffusion layer increases linearly with the square root of time. The rate of its growth is given for various phases and temps. Micro-sections and x-ray patterns were used. J. I. B.

ASB 55.4 METALLURGICAL LITERATURE CLASSIFICATION

CA

The nature of phases resulting from the mutual action of metals and alloys with a high melting point with low-melting metals and alloys. P. V. Glushkin, *J. Tech. Phys.* (U. S. S. R.), 10, 1486-1501 (1940). The nature of phases in the 3-component alloys was studied by the methods of (1) microstructure, (2) x-rays, (3) chemical analyses and (4) measurements of hardness. The following systems were investigated: Cu-(Zn + Sn), Fe-(Zn + Al), (Fe + Ni)-Al, (Fe + Ni)-Zn, (Cu-Ni)-Sn and (Cu + Ni) Zn. All phases represent products of the reaction, and phases which are not in equilibrium with the liquid are also present. The main factor which determines the character of a phase is the heat of formation. An important role is also played by the mutual solubility of intermetallic compounds. Most phases possess a "critical component" corresponding to the interchange of phases. This "critical component" is a function of temperature.

METALLURGICAL LITERATURE CLASSIFICATION

GLUSKIN, D. YA.

FA 156T69

USSR/Metals - Solids, Diffusion
Intermetallic Compounds

Feb 50

"Reactive Diffusion in Metals," D. Ya. Gluskin, Lenin-
grad Ship Constr Inst, 7 pp

"Zhur Tekh Fiz" Vol XX, No 2

Accurately determines nature of phases produced dur-
ing mutual diffusion. Shows that interaction of ele-
ments in the case where they form a number of inter-
metallic compounds is initiated by a chemical reac-
tion whose product is that compound possessing great-
est heat of formation. Includes constitution diagrams
and microphotographs for Cu-Zn and Cu-Sn. Submitted
28 Sep 48.

156T69

GLUSKIN, D. Ya.

Effect of the Allotropic Forms of Iron on the Nature of the Diffusion of Aluminium into Them. D. Ya. Gluskin (*Zhur. Tekhn. Fiziki*, 1953, 23, (6), 833-837; *C. Abs.*, 1953, 49, 7470).—[In Russian]. A study carried out on Arisco Fe, steel YDA, and an Fe-Ni alloy contg. 10% Ni is reported. The samples, 4 mm. in dia. and 20 mm. high, were immersed in molten Al and maintained at various temp. for 10 min. Polished sections were then prepared from the treated samples, and their microstructures studied at the metal/liq. Al boundary. The crystal structures at the boundaries were studied by means of X-rays. 62.

08686

S/137/61/000/001/022/043
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No. 1, p. 10, # 1E75

AUTHORS: Bel'chuk, G.A., Gluskin, D.Ya., Fedorov, N.A.

TITLE: On the Problem of Welding Aluminum and Its Alloys With Steel

PERIODICAL: "Tr. Leningr. korablestroit. in-ta", 1959, No. 29, p. 257

TEXT: Information is given on experimental argon-arc building-up and welding of Al and its alloys (AMr-6T (AMg-6t) type) with steel on whose surface a 0.1 mm thick Al, 0.04 mm thick Zr or 0.02 - 0.05 mm thick Ni layer had been previously applied. The following welding technology is recommended: an Al layer is applied on the steel surface by "allitization" (allitirovaniye) or a Zn layer by hot zincing. On this surface a 20 - 25 mm wide Al layer is welded (3 - 4 beads); then Al or its alloys are welded on the built-up layer by any type of joint. The average tensile or shearing strength of a welded joint is 9-11 kg/mm² at an Al-coating and 4-8 kg/mm² at a Zn-coating. The strength of the joint is reduced when welding without preliminary building-up.

V. B.

Translator's note: This is the full translation of the original Russian abstract.
Card 1/1

57125/61/000/003/006/011
E073/E333

AUTHOR: Grashin, B. Ia. Candidate of Technical Sciences
TITLE: Influence of Preliminary Chemical Heat Treatment
of Iron and Steel on the Interaction with Liquid
Zinc

PERIODICAL: Metallovedeniye i termicheskaya obrabotka
metalliv, 1961, No. 3, pp. 35-40

TEXT: The work was carried out for the purpose of studying
the possibilities of reducing the solubility of iron and steel
in liquid zinc since the problem is important from the point
of view of manufacturing hot-dip zinc-coating equipment.
In the experiments iron and steel were saturated with Cr and
Si for the purpose of studying their influence on the inter-
action between iron and steel and liquid zinc. Pure iron
and steel with 0.1, 0.5 and 1.2% C and commercially pure (99%)
Zn were used. Specimens 7 mm in diameter and 20 mm long were
produced from the iron and steel. Diffusion chromizing of
the specimens was in a mixture containing 74% zinc, carbon
tetrachloride (70% CCl₄), 2% titanium oxide and 4% ammonium

Card 1/4

Influence of

S/129/61/000/005/006/011
E073/E313

chloride. Saturation with Si was by means of a mixture containing 71% ferrosilicon (90% Si), 25% aluminium oxide and 4% ammonium chloride. For investigating the influence of pure chromium on the interaction of iron and steel with molten zinc some specimens were subject to electrolytic chromising. Coatings of FeCr₂O₃ and Fe₂SiO₄ 0.02 to 0.28 mm thick were obtained. Interaction with liquid zinc was studied for these specimens as well as for specimens without preliminary chemical heat treatment. For this purpose zinc was melted in a porcelain crucible and into the molten zinc specimens wetted with zinc chloride were submerged (bath temperature 500 °C) for durations of 2 to 10 hours. It was found that for all the specimens the solubility of the metal in the liquid zinc increased with increasing interaction time. In the case of a 10-hour soaking the width of the Fe-Zn₂ diffusion layer on the iron surface was 0.3 mm and on the surface of the steel 3176 (10A) it was 2 mm. Therefore the cross section of the specimens decreased by 1.2%. Chromised iron and steel dissolved in zinc in a similar manner.

Card 2/4

Influence of zinc

S/129/61/000/005/006/011
E075/E155

- nonchromised steel. The following conclusions are arrived at:
- 1) during interaction of commercial iron and steel with liquid zinc, the solubility of the metal in liquid zinc increases with increasing carbon content;
 - 2) Preliminary silicon cementation increases the solubility of iron and steel in liquid zinc. The higher the carbon content, the more will silicon cementation reduce the resistance to dissolution;
 - 3) Diffusion chromising of iron and steel (0.3% C) does not ensure protection against dissolution in liquid zinc, and diffusion chromating steel with 0.5 and 1% C increases the resistance of the steel to dissolution in liquid zinc. In steel with 0.5% C, individual foci of dissolution can be observed after soaking for a long time in liquid zinc; however, in steel with 1% C, no signs of dissolution were observed, even after long periods of soaking;
 - 4) The diffuse chromium had an equivocal effect on steel specimens submerged in liquid zinc, and this is attributed to the unequal chemical composition occurring in the chromising.

Card 5/4

Influence of ...

S/129/61/000/003/006/011
E073/E333

phases.

5) Electrolytic chromising of iron and steel does not ensure protection from the effect of liquid zinc.
There are 3 figures, 4 tables and 2 references - 1 Soviet and 1 non-Soviet.

ASSOCIATION Leningradskiy korabuestroitelnyy institut
(Leningrad Shipbuilding Institute)

Card 4/4

BEL'CHUK, G.A.; GLUSKIN, D.Ya.; FEDOROV, N.A.

Welding aluminum and its alloys to steel. Trudy LKI no.34:
15-22 '61. (MIRA 15:8)

1. kafedra svarki sushlovykh konstruksiy Leningradskogo
korablestroitel'nogo instituta (for Bel'chuk). 2. Kafedra
metallovedeniya Leningradskogo korablestroitel'nogo instituta
(for Gluskin).

(Aluminum--Welding) (Steel--Welding)

GLUSKIN, Elya Yakovlevich; POLYAKOV, Nikolay Viktorovich; TROYNIN,
Mitrofan Fedorovich; USHAKOV, Nikolay Nikolayevich; USHAKOV,
Nikolay Stepanovich; SEYRANYAN, R.M., inzh., retsement;
NEFEDOV, P.K., inzh., red.; YURKEVICH, M.P., red. i sd-vag;
POL'SKAYA, R.G., tekhn.red.

[Over-all mechanization and automation of internal transportation
in instrument plants] Kompleksnaya mekhanizatsiya i avtomatizatsiya
vmutrizavodskogo transporta v priborostroenii. By M.I.A.Gluskin
i dr. Moskva, Mashgiz, 1961. 326 p. (MIRA 14:12)
(Instrument industry) (Automation)
(Conveying machinery)

GLUSKIN, E.Ya.; POLYAKOV, N.V.; TROYMIN, L.F.; USHAROV, N.S.;
NEFEDOV, P.K., inzh., red.

[Overall mechanization and automation of intraplant
transportation in instrument plants] Kompleksnaya me-
khanizatsiya i avtomatizatsiya vnutriprovodskogo trans-
porta v priborostroenii. 2., izd., ispr. i dop. Mosk-
va, Mashinostroyeniye, 1964. 288 p. (MIRA 4711)

GLUSKIN, I.I. (Omsk)

Fixation of plastic in a combined bridge. Stomatologiya 36 no.3:73
Ky-Je '57. (MIRA 10:9)

(DENTAL PROSTHESIS) (PLASTICS)

FREYTSIS, Iosif Davidovich; GLUSKIN, I.Ya., inzh., retirement;
KRIAKHOVSKAYA, L.M., Fed.

[Centralized temperature regulation and control systems
in manufacturing rubber and plastic articles. Tsent-
ralizovannye sistemy regulirovaniia i kontrolya tempera-
tury pri proizvodstve izdelii iz reziny i plasticheskikh
mass. Moskva, Izd-vo "Legkaia industriia," 1964. 121 p.
(MLA 17:5)

GLUSKIN, L.I., gornyy inzhener

Improving technology and increasing labor output. Gor.zhur. no.1:17-
22 Ja '55. (MLRA 8:7)
(Komsomolskoye--Mine haulage) (Excavating machinery)

GLUSKIN, L.I.

Automatic metal detection at the Kara Kub crushing and ore dressing
plant. Gor. zhur. no.1:75-77 Ja '57. (MLBA 10:4)

1. Glavnyy inzhener Karakubskogo rudoupravleniya.
(Komsomol'skoye--Limestone) (Ore dressing)

6113111 7 1
SUBJECT: USSR/Mining

127-10-22/24

AUTHOR: Gluskin, L.I., Engineer

TITLE: Improvement of Water Supply for Percussive-Rope Boring
Machines (Ratsionalizatsiya snabzheniya vodoy stankov udarno-
kanatnogo bureniya)

PERIODICAL: Gornyy Zhurnal, 1957, # 10, p 77 (USSR)

ABSTRACT: In the Karakub Mining Administration, the water consumption
amounts to 25 to 65 liters per meter of bore hole for blasting
operations. The total consumption is on the average 18 cu m
per shift.

It was found out that the most expedient method of water supply
was to bore special water wells. One or two of these wells
were needed to ensure the water supply for a 300 m long, section
of the open mine.

A portable installation for water delivery by gravity to the
bore holes was designed and constructed in the mine. Its
weight is 2.5 tons and it is snifted by means of a bulldozer.

Card 1/2

Comparing various water supply methods, the author concludes

127-10-22/24

TITLE: Improvement of Water Supply for Percussive-Rope Boring
Machines (Ratsionalizatsiya snabzheniya vody stankov udarno-
kanatnogo bureniya)

that the method described is the most advantageous and reliable
for operation under any weather conditions.

The article contains 1 figure.
No references are cited.

ASSOCIATION: Karakub Mining Administration (Karakubskiy rudoupravleniye)

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress

Card 2/2

GLUSKIN, L.I., inzh.

Operations of the Karakub Mine Administration. Biul. TSNICHM
no. 10:1-7 '58. (MIRA 11:7)
(Stalino Province--Limestone)

GLUSKIN, L.I.

Eliminate errors in designing ore-dressing plants. Bezop. truda v prom.
2 no.11:16 N '58. (MIRA 11:11)

1. Glavnyy inzhener Karakubskogo rudoupravleniya.
(Ore dressing)

GLUSKIN, L.I.

Mechanization of charging operations in blasting. Ugol' 34 no.9:59-60
S '59. (MIRA 12:12)

1. Glavnyy inzhener Karakubskogo rudoupravleniya.
(Coal mines and mining--Explosives) (Materials handling)

GLUSKIN, L.I., inzh.; KHAR'KOVSKIY, V.Ya., inzh.

Automatically controlled equipment for water feed by gravity to
percussive cable drilling machines. Gor.zhur. no.9:73-74 S
'60. (MIRA 13:9)

1. Karakubskoye rudoupravleniye, Stalinskaya oblast'.
(Boring machinery) (Automatic control)

GLUSKIN, L.I.

Increasing the serviceability of conveyor belts at the Karakubskaya
Crushing and Ore-dressing Plant. Vop.rud. transp. no.4:152-158 '60.
(MIRA 14:3)

1. Karakubskoye rudoupravleniye.
(Komsomol'skoye (Stalino Province)—Conveying machinery)

GLUSKIN, L. I., Cand Tech Sci -- "Study of the technology
of blasting in open-pit mining of flux limestone." Mos,
1961. (Inst of Min-Enterprise in A. A. Skochinskiy) (KL,
8-61, 242)

- 214 -

GLUSKIN, L.I., gornyy inzhener

Improving boring and blasting operations in mines of the Karakubskiy Mining Administration. Vzryv. delo no.47/4:5-20 '61. (MIRA 15:2)

1. Karakubskoye rudoupravleniye.

(Komsomol'skoye region (Donetsk Province)--Blasting) (Boring)

NOVOZHILOV, I.G., prof.; KUCHERYAVYY, F.I., dotsent; KHODAKOVSKIY, Yu.F.,
gornyy inzh.; GLUSKIN, L.I., gornyy inzh.

Optimum parameters of boring and blasting operations and their
effect on rock breaking by blasting. Vzryv. delo no.42/4:197-204
'61. (MIRA 15:2)

(Blasting) (Boring)

NOVOZHILOV, M.G., prof., doktor tekhn. nauk; SEL'YANIN, V.G.; TARTAKOVSKIY, B.N.; Prinsipali uchastiye: POHELKIN, G.D., inzh.; ESKIN, V.S., inzh.; SHARKOV, A.M., kand. tekhn. nauk; BORISYER, R.F., inzh.; ABDUPATTAKHOV, A.A., inzh.; ANDRIYENKO, A.F., inzh.; KITTOLOV, P.M., inzh.; GLUSKIN, L.I., inzh.; LEVCHENKO, N.K., inzh.; GAVRILYUK, I.I., inzh.; SHPEKTOROV, Yu.Z., inzh.; KOCHERGA, N.T., red.; GORKAVENKO, L.I., tekhn. red.

[New technical methods and equipment in open-pit mining of mineral deposits] Novaya tekhnologiya otkrytoi razrabotki nestorozhdenii poleznykh iskopaemykh. Pod obshchei red. M.G. Novozhilova. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1961. 205 p.

(MIRA 15:5)

(Strip mining)

NOVOZHILOV, M.G., prof.; KUCHERYAVYY, F.I., dotsent; KHODAKOVSKIY, Yu.F.,
inzh.; GLUSKIN, L.I.

Ways of increasing the efficiency of boring and blasting in
the Karakubskiy pits. Gor. zhur. no.7:36-38 J1 '61.
(MIRA 15:2)

1. Dnepropetrovskiy gornyy institut (for Novozhilov,
Kucheryavyy, Khodakovskiy). 2. Glavnyy inzh. Karakubskogo
rudoupravleniya (for Gluskin).
(Komsomol'skoye region(Donetsk Province)---Boring)
(Blasting)

GLUSKIN, L.I.

Charging unit. Ogneupory 27 no.12:544-545 '62. (MIRA 15:12)

1. Karakubskoye rudoupravleniye.
(Explosives—Transportation)
(Materials Handling)

GLUSKIN, L.T., SHENKO, V.N.

Review of the book "Strip mining systems." "Gorn' 68" no. 1-
62-63 Ja '68, (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut obratnykh
stroitel'nykh materialov i gidromekhanizatsii.

GLUSKIN, L.I., kand. tekhn. nauk; KOZHEVNIKOV, A.A., inzh.

Basic trends in increasing the efficiency of boring and blasting
operations in open-pit mines. Vzryv. delo no.51/8:231-239 '63.
(MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut nerudnoy
promyshlennosti.

(Strip mining) (Boring) (Blasting)

GLUSKIN, L.I., kand. tekhn. nauk; KORSAKOV, P.F., gornyy inzhener,
KOZHEVNIKOV, A.A., gornyy inzhener

Studying the efficiency of blasting small diameter, inclined
borehole charges in gneissic granite. Vzryv. delo no.54/11:
137-145 '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut nerudnykh
stroitel'nykh materialov i gidromekhanizatsii.

GLUSKIN, L.I., kand. tekhn. nauk, MSKIN, s.Ye., inzh.

Using igdanite and charges with air pockets in Samara Bend
quarries. Vzryv. delo no.54/11:330-334 '64.

(MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut nerudnykh
stroitel'nykh materialov i gidromekhanizatsii.

TARTAKOVSKIY, B.N., kand. tekhn. nauk; GLUSKIN, L.I., kand. tekhn. nauk;
GAVRILYUK, I.I., inzh.; CHETVERIK, M.S., inzh.

Graphoanalytical method of investigating the regime stripping
operations. Sbor. trud. VNIINerud no.4.33-41 '65.
(MIRA 18:11)

GLUSKIN, L. M.

USSR/Mathematics

Card : 1/1

Authors : Gluskin, L. M.

Title : Associate system of square matrices

Periodical : Dokl. AN SSSR, 97, Ed. 1, 17 - 20, July 1954

Abstract : A set G_n that embraces all the square matrices of the n - order, over a field P , is defined. The interior characteristics of the G_n system are demonstrated and the conditions for its homeomorphism (first examined in 1953 by Maltsev and Sivertseva) are further expounded. One basic theorem, formulating the above conditions, six lemmas and their proof are presented. Three references.

Institution : The G. S. Skovoroda State Pedagogical Institute of Kharkov

Presented by : Academician, A. N. Kolmogorov, April, 1954

Gluskin, L. M.

USSR/Mathematics - Abstract algebra

Card 1/1 Pub. 22 - 4/53

Authors : Gluskin, L. M.

Title : Homomorphisms of one-side simple semi-groups on to the groups

Periodical : Dok. AN SSSR 102/4, 673-676, June 1, 1955

Abstract : A construction of the greatest common division $\bar{\varphi}$ of all homomorphisms of a one-side simple semi-group G on to the groups is described. Six references: 1 German, 2 French and 3 USSR (1932-1953).

Institution : The G. S. Skovoroda State Pedagogical Institute, Khar'kov

Presented by: Academician P. S. Akeksandrov, February 17, 1955

GLUSKIN, L. M.

USSR/ Mathematics - Simple semi-groups

Card 1/1 Pub. 22 - 1/46

Authors : Gluskin, L. M.

Title : Simple semi-groups with zero

Periodical : Dok. AN SSSR 103/1, 5-8, Jul 1, 1955

Abstract : A necessary and sufficient condition for the simplicity of a semi-group with zero is formulated. On the basis of this formulation, the manner in which the semi-groups are reduced with the zero to the well-known class of fully simple semi-groups in the Rees's meaning is shown. Five references: 1 USA, 2 Brit. and 2 USSR (1940-1950).

Institution : Khar'kovskiy State Pedagogical Institute imeni G. S. Skovoroda

Presented by: Academician P. S. Alexandrov, February 17, 1955

GLUSKIN, L. M.,

44-1-172

TRANSLATION FROM: Referativnyy zhurnal, Matematika, 1957, Nr 1,
p 23 (USSR)

AUTHOR: Gluskin, L.M.

TITLE: Semigroups of Continuous Deformation (Polugruppy
nepreryvnykh deformatsiy)

PERIODICAL: Tr. 3-go Vses. matem. s"yezda, 2, Moscow,
AN SSR, 1956, pp 111-112

ABSTRACT: Bibliographic entry

Card 1/1

GLUSKIN L. M.

44-1-162

Translation from: Referativnyy Zhurnal, Matematika, 1957, Nr 1, p. 21 (USSR)

AUTHOR: Gluskin, L. M.

TITLE: Continuation of Homomorphisms of Semigroups (Prodolzheniye
gomomorfizmov polugrupp)

PERIODICAL: Uch. zap. Khar'kovsk. gos. ped. in-ta, 1956, 18, pp. 33-39.

ABSTRACT: A description is given of a series of conditions sufficient for the continuation of an arbitrary homomorphism φ of a two-sided ideal A (or of a subsemigroup representing a group) of a semigroup G up to some homomorphism of a total semigroup G into some supersemigroup of a semigroup $\varphi(A)$. For example, continuation exists if the ideal A is of unit value. In the case where A represents a group, continuation exists if the semigroup G is commutative. In addition, the relationship between normal subsystems of an arbitrary semigroup and normal subsystems of some of its two-sided ideals is investigated.

Card 1/1

Ye. S. Lyapin.

GLUSKIN, L. M.

44-1-163

Translation from: Referativnyy Zhurnal, Matematika, 1957, Nr 1, p. 21 (USSR)

AUTHOR: Gluskin, L. M.

TITLE: Totally Simple Semigroups (Vpolne prostyye polugruppy)

PERIODICAL: Uch. zap. Khar'kovsk. gos. ped. in-ta, 1956, 18, pp. 41-55

ABSTRACT: Let S be a totally simple semigroup in the sense of Rees (Rees, D., Proc. Cambridge Philos. Soc., 1940, 36, Nr 4, pp. 387-400). It is proved that any homomorphic image of semigroup S is at the same time a totally simple semigroup. It is shown that any homomorphism of semigroup S is a composition of three rather simply determinable homomorphisms. The construction of closed normal subsets, which are complete inverse images of idempotents at arbitrary homomorphisms, is described. In particular, normal subsystems of semigroup S are studied. In addition, homomorphisms of semigroup S are investigated by groups, as are other properties of the same semigroup in connection with its homomorphisms.

Ye. S. Lyapun

Card 1/1

GLUSKIN, L.M. (Khar'kov)

Semigroups of matrices with nonnegative elements. Uchen. zap. KNU 80:167-173 '57. (MERG 12:11)
(Matrices) (Groups, Theory of)

SOV/38-22-3-9/9

AUTHOR: Gluskin, L.M.
 TITLE: On Semigroups of Matrices (O matrichnykh polugruppakh)
 PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1958,
 Vol 22, Nr 3, pp 439-448 (USSR)
 ABSTRACT: Let F be a ring, the multiplicative semigroup M_F of which is
 the union of a group with the zero element of M_F . The author
 characterizes the semigroup $G_n^n(F)$ of all quadratic matrices
 over F by their sub-semigroup $G_n^1(F)$ which consists of all
 matrices of rank ≤ 1 . It is shown that $G_n^1(F)$ is completely
 simple. A theorem concerning the isomorphisms of the semigroups
 $G_n^r(F)$ is proved ($G_n^r(F)$ denotes the semigroup of all qua-
 dratic matrices of order n with elements of F of rank $\leq r$).
 There are 10 references, 7 of which are Soviet, 1 English,
 1 German, and 1 French.

Card 1/2

On Semigroups of Matrices

SOV/38-22-3-9/9

PRESENTED: by P.S. Aleksandrov, Academician

SUBMITTED: March 12, 1957

1. Matrix algebra--Theory

Card 2/2

USCOMM-DC-60229

SUBJECT USSR/MATHEMATICS/Algebra
 AUTHOR GLUSKIN L. M.
 TITLE Elementary generalized groups.
 PERIODICAL Mat.Sbornik, n. Ser. 41, 1, 23-36 (1957)
 reviewed 5/1957

CARD 1/1

PG - 730

The set G is a semigroup if a unique binary associative operation is defined in it. An element u of G is called invertible in the generalized sense if there exists an element $v \in G$ such that $uvu = u$, $vuv = v$ (v is, in the generalized sense, the inverse element). G is called a generalized group if to each of its elements there exists a generalized inverse element and if two arbitrary ones of its idempotents are commutative. Let $H = H(u, v)$ be a subsemigroup of a generalized group G , generated by the elements u and v . For the consideration of the generalized group these semigroups H (so-called elementary generalized groups) play the same part as cyclic groups for the consideration of ordinary groups. It is shown that every element x of H can be represented in the form $x = v^k u^l v^m$ ($1 \leq k \leq 0$, $1 \leq m \leq 0$, $1 \leq l \leq 0$). It is proved that every elementary generalized group is characterized by at most three relations of a certain form and that it can be given by six integral parameters. The homomorphisms and automorphisms of an arbitrary elementary generalized group are enumerated. Some special elementary generalized groups are investigated in detail.

INSTITUTION: Charkov

GLUSKIN, L.M.

Matrix semigroups. Izv. AN SSSR. Ser. mat. 22 no.3:439-448 My-Je
'58. (MIRA 11:8)

1. Predstavleno akademikom P.S. Aleksandrovym.
(Groups, Theory of)

16(1)

AUTHORS: Gluskin, L.M., and Lyapin, Ye.S.

397/42-14-1-26/27

TITLE: Anton Kazimirovich Sushkevich (to his 70th Birthday) (Anton Kazimirovich Sushkevich (k semidesyatiletiyu so dnya rozhdeniya))

PERIODICAL: Uspekhi matematicheskikh nauk, 1959, Vol. 14, Nr. 1, pp. 255-260 (USSR)

ABSTRACT: This is a short appreciation of the merits and a career of 1895 of A.K. Sushkevich. Professor of the Kharkov University. He studied in Berlin from 1908-1911, 1913 he finished his studies at the Petersburg University, 1917 - degree of Magister of Kharkov, 1926 - degree of Doctor of Kharkov. Since 1931 he was Professor in Voronezh, since 1929 Professor in Kharkov. Main domain of work: Quasigroups, semigroups. The investigations were continued by N.N. Vorobeyev, V.V. Vagner, A.I. Mal'tsev, I.S. Ponizovskiy, Ye.A. Khaleev, and others. The list of publications contains 71 papers (1922-1957). There is a photo of Sushkevich.

Card 1/1

16(1)

AUTHOR: Gluskin, L.M. SOV/38-23-6-4/11
TITLE: Semigroups and Rings of Endomorphisms of Linear Spaces
PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1959,
Vol 23, Nr 6, pp 841 - 870 (USSR)
ABSTRACT: The present paper contains a detailed representation of the
results already announced in [Ref 13] concerning semigroups
and rings of linear transformations and some classes of
abstract rings. The paper consists of 6 paragraphs with 57
lemmata and theorems.
There are 13 references, 7 of which are Soviet, 5 American,
and 1 English.
PRESENTED: by A.I. Mal'tsev, Academician
SUBMITTED: April 7, 1959

Card 1/1

16(1)

AUTHOR:

Gluckin, I. M. (Moscow, USSR)

1979-17:1-5/6

TITLE:

Ideals of Transformation Semigroups (Russian; polynography preobrazovaniy)

PERIODICAL:

Matematicheskii sbornik, 1959, Vol. 47, No. 1, pp. 11-130 (USSR)

ABSTRACT:

The ideal I of the semigroup A is called a π -ideal if: (i) every non-trivial homomorphism of A induces a non-trivial homomorphism of the semigroup I ; (ii) for M an arbitrary subsemigroup of A containing I , if there is a semigroup S containing M and I as an ideal in S , then there exists a homomorphism of S in A inducing the identical isomorphism on M . Let Ω be a set; let $\Gamma_1(a)$, $\Gamma_2(a)$ be two subsets of Ω ; let α be a unique mapping of $\Gamma_1(a)$ onto $\Gamma_2(a)$; α is called a partial transformation of Ω . Let $W(\Omega)$ be the set of all partial transformations of Ω . The semigroup $AG W(\Omega)$ is called weakly transitive if $\bigcup_{a \in A} \Gamma_1(a) = \bigcup_{a \in A} \Gamma_2(a) = \Omega$. $AG W(\Omega)$ is called Ω -pure if to every point $\xi, \eta \in \Omega$ there exists an $a \in A$ such that either $\xi \in \Gamma_1(a)$ or $\eta \in \Gamma_1(a)$ and ξ, η are only one of the points $\xi, \eta \in \Gamma_1(a)$; $a\xi = a\eta$.

Card 1/2

Ideals of Transformation Semigroups

31/7/79 47-1-5/8

Principal theorem: Every weakly transitive Ω -prime subsemigroup A of the semigroup $W(\Omega)$ of all partial transformations of the set Ω is its δ -subsemigroup. The paper contains some further results which partly overlap with theorems due to Lyapin [Ref 1,2] and partly they give a further development of results of Lyapin. The points of contact of the author and Lyapin result from the fact that the definition of the δ -ideals is similar to the definition of the densely imbedded ideals of Lyapin [Ref 1,2]. There are 10 references, 6 of which are Soviet, 3 American, 1 English, 1 German and 2 French.

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10(1)

AUTHOR: Gluskin, L.M. (Voroshilovsk)

SOV/38-49-1-2/5

TITLE: Semigroup of Homeomorphic Mappings of a Line Segment

PERIODICAL: Matematicheskii sbornik, 1959, Vol 43, Nr 1, pp 13-28 (USSR

ABSTRACT: Let S be the set of all continuous strongly monotone functions $f(\xi)$ defined on $E = [0, 1]$ and for which $0 \leq f(\xi) \leq 1$. S is a semigroup with respect to the superposition of the functions: $f \cdot g = fg = f[g(\xi)]$. The author investigates the semigroup S , considers the divisibility in S , and determines the one- and two-sided ideals. He gives two non-isomorphic subsemigroups of S having no non-trivial homomorphisms. The group of automorphisms of S is not determined. The topology of S is investigated. The author proves the existence of a finite base and gives subsemigroups dense in S which are related with S with respect to their algebraic and topological properties. There are 14 references, 7 of which are Soviet, 4 American, 1 English, and 2 Polish.

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16(1)

SGT/24-125-4-2/74

AUTHOR: Gluskin, L.M.

TITLE: Semigroups of Topological Mappings (Polugruppy topologicheskikh otobrazheniy)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4, pp 699-702 (USSR)

ABSTRACT: Let Ω be a bounded closed point set of the R_n . Let $\text{int } \Omega \neq \emptyset$ be the maximal open set in Ω . Let Ω_i be the components of $\text{int } \Omega$, let I be the set of all indices i . The author considers the semigroup S of all topological mappings of Ω into themselves. Let the rank of $a \in S$ be the cardinality of the set of all $i \in I$ for which $a\Omega \cap \Omega_i \neq \emptyset$. Let S_r^β be the set of $a \in S$ for which $\text{rang } a \leq r$ and for which for $a\Omega \cap \Omega_i \neq \emptyset$ there exists a closed β -connected subset $\Omega_i' \subset \Omega_i$ so that $a\Omega \cap \Omega_i' \subset \text{int } \Omega_i'$. The sets S_r^β are right ideals of S ; the sets S_r^δ, S_1^β , where $\delta = \max \beta$ are two-sided ideals of S . A unique mapping λ of the semigroup X into itself is called its right translation if for all $a, b \in X$ it holds: $a \cdot \lambda b = \lambda(ab)$. Let

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$$(1) \quad S_r^\beta = \cup_{\alpha} L_{\alpha}$$

be the finest decomposition of S_r^β into pairwise disjoint left ideals; f_{α} be arbitrary elements of S .

Theorem: A mapping λ of S_r^β into itself is its right translation then and only then if

$$(2) \quad \lambda a = af_{\alpha}, \quad a \in L_{\alpha}.$$

Let f be a homeomorphism of Ω onto itself. The mapping

$$(3) \quad \psi x = fxf^{-1}, \quad x \in S_r^\beta$$

is an automorphism of S_r^β .

Theorem: Every automorphism φ of S_r^β has the form $\varphi = \psi\lambda$, where ψ is of the type (3) and λ is an automorphism representing a right translation of S_r^β .

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